

for the amendments is found in the specification at, *inter alia*, page 3, last full paragraph; page 5, lines 23 to page 6, line 4; page 8, 1<sup>st</sup> full paragraph; page 8, last full paragraph; Example 4; and Table 5.

The present claims are supported fully by the specification and the original claims. No new matter is presented.

#### **Rejection of the Claims under 35 U.S.C. §103(a).**

The Examiner has reasserted a rejection of claims under 35 USC §103(a) as obvious over Greenspan in light of McMurry. From the OA is not clear what particular claims are rejected over only Greenspan in light of McMurry, but it would appear that this rejection covers all pending claims but Claim 47.

At the top of page 7 of the OA, the Examiner notes that Claim 47 is limited to the use of methylene chloride as an organic solvent. Accordingly, the Examiner issued an alternative §103(a) rejection, covering all pending claims, over Greenspan in light of McMurry and further in light of Kanoja or Habtemariam. The Examiner indicated that Kanoja and Habtemariam teach that organic solvents can be used interchangeably.

Thus, all pending claims are rejected as obvious. There are no other grounds for rejection of record.

The Applicant respectfully traverses on two alternative grounds:

##### I. The Claims recite steps not described by the prior art.

The Examiner had noted that Greenspan does not specifically teach *Mammea Americana* as having antimicrobial activity. The Examiner also acknowledged the Applicant's observation that *In re Adams* ruled that "obviousness can not be predicted on what is unknown" and the observation by Applicant that "insecticidal activity" does not equate "antimicrobial activity."

The Examiner noted that, however, "[t]he method claims are compared with the prior art with respect to the steps in the method of the claimed invention" (bottom of page 4 of the OA) and stated that the manner the Applicant recited this limitation in the claim (in a whereby clause) is not given patentability weight, citing MPEP §2111.04. MPEP §2111.04 cites *In Hoffer v Microsoft Corp* for holding that 'whereby clauses can impart patentability,' but cites *Minton v Natn'l Assoc. of Securities Dealers* to distinguish that from a situation where a "**whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited.**" (Emphasis by the Examiner.)

Independent claim 32 has now been amended to recite as a step an element the Applicant has assumed all alone is a limitation of the claim, i.e. the fraction having antibacterial activity;

the claim now has the additional step of “administering the fraction having antimicrobial activity to bacteria.”

Claim 59, newly presented and dependent on Claim 32 further indicates that the administration of the fraction is part of an assay for bacteria.

Therefore, based also on this set of explanations and amendments, the Applicant respectfully requests the rejections under §103 be withdrawn and the claims allowed.

The Applicant presents additional claims, independent Claim 59 and dependent Claims 60-62, which include the previously presented method claim steps and include for the first time the step of “selecting or having pre-selected a fraction having antimicrobial activity for elution from the chromatographic separation system.” Dependent Claim 60 further limits Claim 59 to pre-selection of a fraction comprising stigmasterol or cobaltocene octamethyl, while dependent Claims 61 and 62 refer to selection of the fraction by performing an anti-bacterial assay.

II. The cited prior art does not teach the concepts that the examiner credits to these documents and the combination is improper.

The OA does not specify what is the role of the McMurry reference in the rejection.<sup>1</sup>

The Examiner acknowledges that Greenspan refers only to hexane. Greenspan does not suggest that elution from the chromatographic system would be necessary, he only analyses the product, does not require material for usage and testing. Kanoja and Habtemariam, which purportedly refer to use of alternative eluting polar solvents might do so, but in the context of eluting specific compounds. The Examiner does not indicate where these documents teach broadly the use of polar solvents for elution of any compound or even for general classes of compounds, let alone for fractions from *Mammea Americana*, and furthermore for fractions that contain antimicrobial compounds from a plant, let alone *Mammea Americana*. The Applicant does not find any of these teachings in the documents.

To the contrary, Greenspan explains that the work relates to mammein extraction only<sup>2</sup> and specifically states that another solvent will not likely work.<sup>3</sup> Not only that, but Greenspan

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<sup>1</sup> McMurray appears to refer to HPLC.

<sup>2</sup> See, *inter alia*, Material and Methods, on page 237.

<sup>3</sup> See first paragraph under Results and Discussion, starting on page 238: ‘insecticidal components were recovered only in hexane extracts, consistent with previous reports;’ compare with mid page 237, right hand column: “A sequential series of chloroform, acetone, methanol, and water extractions were also done to determine if insecticidal activity is present in other fractions.”

teaches the use of hexane as an initial step, BEFORE elution from any column<sup>4</sup>. The combination of teachings of initial extraction of Compound A with solvent X with the teaching of elution by solvent Y of Compound B would in itself be questionable, but it is clearly improper in light of specific prohibition by one of the references (Greenspan) of the use of another solvent.

The Examiner indicates that methylene chloride is but a variation of Greenspan's technique, who employs hexane. However, methyle chloride is not one of a limited number of such options, nor an option expected to have success in eluting microbial compounds of Americana, especially given that it was unknown for *Mammea Americana* to contain distinct antibacterial compounds, and, further, that the target of Greenspan's research was to be extracted only with hexane. Success to obtain an antimicrobial by some method is predicated upon knowing of the presence of an extractable anti-bacterial agent in that particular plant; absent such knowledge, no method of extraction from that plant could be obvious. Furthermore, Greenspan stated: 'only hexane appears to be a good solvent'.

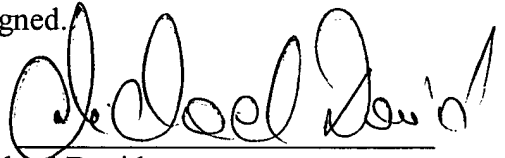
Therefore, based on these explanations, the Applicant respectfully requests the rejections under §103 be withdrawn and the claims allowed.

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<sup>4</sup> Elution is another element Greenspan does not teach.

The Examiner is respectfully urged to always point out to the Applicant's representative any situations where dependent claims re-written in independent form are considered by the Examiner as allowable. Should the Examiner determine at any time during prosecution of this application that a telephone conversation with Applicant's representatives would be useful to clarify or expedite any matters, she is invited to call the undersigned.

Date: September 9, 2008

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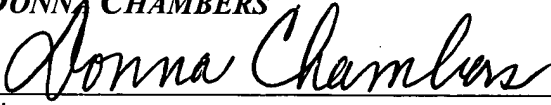
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***DONNA CHAMBERS***

A handwritten signature in cursive script that reads "Donna Chambers". The signature is written in dark ink and is positioned above a horizontal line.

Signature

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